

AMENDMENTS TO THE CLAIMS

- 1 1. (Previously Presented) A serial communications system comprising:
2 a scrambler for converting original received data into scrambled data; and
3 an ECC encoder for converting said scrambled data into ECC-encoded data.
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- 1 2. (Original) The system as recited in Claim 1, further comprising:
2 a serializer for converting said ECC-encoded data into serialized data;
3 wherein the ECC-encoded data includes frame alignment information; and
4 the system further comprises a receiver for receiving said serialized data and
5 converting the serialized data into data frames based upon the frame alignment information.
- 1 3. (Original) The system as recited in Claim 2, wherein the receiver comprises:
2 a frame-recoverer for converting said serialized data into data frames;
3 an ECC decoder for converting said data frames into ECC-decoded data and
4 error indications; and
5 a scrambler for converting said ECC-decoded data into de-scrambled data.
- 1 4. (Currently Amended) The system as recited in Claim ~~[[5]]~~ 3, wherein said frame-
2 recoverer uses said error indications in converting said serialized data into data frames.
- 1 5. (Original) The system as recited in Claim 1, wherein said ECC encoder applies an
2 error correction code in converting said scrambled data into said ECC-encoded data.
- 1 6. (Previously Presented) A serial communications method, comprising the steps of:
2 converting original received data into scrambled data; and
3 converting said scrambled data into ECC-encoded data.

1 7. (Original) The method as recited in Claim 6, further comprising the steps of:
2 generating a serial stream of the ECC-encoded data; and
3 transmitting said serial stream.

1 8. (Original) The method of Claim 7, wherein:
2 the ECC-encoded data includes frame alignment information; and
3 the method further comprises receiving said serialized data and converting
4 said serialized data into data frames based upon said frame alignment information.

1 9. (Original) The method of Claim 7, further comprising:
2 receiving said serialized data;
3 converting said serialized data into data frames;
4 converting said data frames into ECC-decoded data and error indications; and
5 converting said ECC-decoded data into de-scrambled data.

1 10. (Original) The method of Claim 9, wherein the step of converting the serialized
2 data comprises converting the serialized data into data frames based upon said error
3 indications.

1 11. – 33. (canceled)

1 34. (Currently Amended) A serial communication system comprising:
2 a scrambler for converting received data into scrambled data, said received
3 data being without redundant bits inserted by said serial communication system or being re-
4 encoded by said serial communication system; and
5 an ECC encoder for converting said scrambled data into ECC-encoded data.